

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R) CONTRACT NO: EDH-I-00-08-00023

MONTHLY PROGRESS REPORT – JANUARY 2014

10 February 2014

ENGINEERING SERVICES FOR RURAL ROAD REHABILITATION (ES3R)

CONTRACT NO. EDH-I-00-08-00023

MONTHLY PROGRESS REPORT JANUARY 2014

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10 February 2014

The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government. This report was prepared for the U.S. Agency for International Development. It was prepared by CDM International, Engineering Services Rural Roads Rehabilitation (ES3R)

Acronyms

CBA Cost Benefit Analysis

COP Chief of Party

ES3R Engineering Services for Rural Roads Rehabilitation

FED Food and Enterprise Development

FTF Feed the Future

F2M Farm to Market

F2MRR Farm to Market Road Rehabilitation

GIS Geographic Information System

GOL Government of Liberia

LESSP Liberia Energy Sector Support Project

LMWP Liberia Municipal Water Project

MCA Multi Criteria Analysis

MOF Ministry of Finance

MPW Ministry of Public Works

OCA Organizational Capacity Assessment

PQM Project Quality Management

QAC Quality Assurance Contractor

USAID United States Agency for International Development

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1. SUMMARY PROJECT DESCRIPTION

1.1 Introduction

The U. S. Agency for International Development's (USAID) 'Engineering Services for Rural Roads Rehabilitation (ES3R)' was awarded to Camp Dresser McKee International (CDM) under the following USAID contract number: EDH-I-00-08-00023 and task order AID-669-TO-13-00002 which records the period of performance as 8 October 2013 to 20 October 2015.

Liberia's Farm to Market Rural Roads (F2MRR) activity is allied to the objectives of the Feed the Future (FTF) initiative, which is a U.S. government initiative, which aims to address the root causes of global hunger by sustainably increasing agricultural productivity. F2MRR will provide infrastructure investment in the rehabilitation of rural farm-to-market roads to support the following:

- USAID /Liberia FTF program Food and Enterprise Development (FED),
- Capacity development for routine maintenance systems within the Government of Liberia (GOL),
- Capacity development of Ministry of Public Works (MPW) rural roads engineers and local A & E firms,
- Development of alternative low volume road pavement pilot projects, standards and design specifications.

1.2 Objectives

Within F2MRR, ES3R will be an implementing mechanism which will undertake the following objectives:

Objective 1:

Provide construction oversight for three (3) local contracts for the rehabilitation of a total of 83.5 kilometers farm-to-market roads in Bong, Lofa, and Nimba counties from 2013 to 2015.

Objective 2:

Produce engineering designs and construction documents for the 450 kilometers farm-to-market roads in Bong, Lofa, Nimba, and Grand Bassa counties to be rehabilitated in 2015 to 2018.

Objective 3:

Training and pre-qualification of five (5) local architect-engineer firms capable of providing oversight for road rehabilitation activities by 2015.

This monthly progress report presented in respect of the project, covers the period from 1 January 2014 to 2 February 2014, that being a slightly extended 'cut off' date which coincides with the completion of the field trip to the three counties. In addition, the report details the status and approach to outstanding items and presents an outline work schedule for the forthcoming month.

2. JANUARY 2014 OVERVIEW

Preamble

During January 2014, much logistical work was carried out in the ongoing mobilization process, particularly in the organization of office equipment, furniture, IT and the like in order to facilitate the occupancy of the new office during week ending 17 January 2014.

2.1 January Highlights Summary

The table included hereafter provides a summary of the project highlights:

JANUARY 2014				
Date	Description	Comment		
4 Jan	TRG Training Specialist arrives in Monrovia	Bruce Purdy		
6 Jan	Weekly Meeting with USAID	US Embassy		
10 Jan	Jim Clarke returns to Monrovia after leave	Jim Clarke		
15 Jan	Weekly Meeting with USAID	US Embassy		
19 Jan	TRG Specialist field work complete & departs	Demob TRG		
20 Jan	Quarterly Deliverable submitted to USAID	Quarterly Report		
20 Jan	Final Inception Report & PMP submitted	Inception Report		
21 Jan	Weekly Meeting with USAID	CDM Office		
22 Jan	Kick Off with Contractor at USAID (21st Century)	Award of Nimba		
22 Jan	Kick Off with Contractor at USAID (Westwood)	Award of Bong		
23 Jan	Meeting with USAID at project office	Recap of weekly		
27 Jan	Kick Off with Contractor at USAID (SSF)	Award of Lofa		
28 Jan	Depart Monrovia for drive to Voinjama, Lofa	Counties Visit		
29 Jan	Meeting at Lofa County Administration	County Super		
29 Jan	Visit FED Lofa county office	County Manager		
29 Jan	Visit to two Lofa Roads	Drive Roads		
30 Jan	Drive to Gabarnga and meet with Bong County	Officers at Admin		
30 Jan	Visit FED Bong county office	County Manager		

31 Jan	Visit long Bong county road and two Nimba roads	Drive Roads
1 Feb Drive to Sannequelle; meet with Nimba County		County Super
1 Feb	1 Feb Visit to FED Nimba county office	
2 Feb	Return to Monrovia from counties visit	Home office

In particular, five more specific items are worthy of note, being specifically related to the progression of the objectives of the project, namely:

- Training specialist arrival for Training Capacity Development
- Submission of Project Deliverables
- Award of Works Contracts and Notice to Proceed to contractors
- Road Prioritization Tool
- Field Visits to Counties by USAID and CDM key staff

The abovementioned items will be elaborated in the following section.

2.2 Details of Highlights

2.2.1 Training Capacity Development (Field Trip)

Capacity Development Objectives:

The CDM scope of services under the project includes the promoting and capacity building of local A&E firms. The capacity development specialist is supporting the work of the CDM team with a focus on capacity building and guidance associated with the team's assigned activities. The intent of the ES3R program is to pre-qualify and train five local A&E firms capable of providing oversight for the road rehabilitation activities by 2015. Ultimately

by the end of the project the capacity development specialist will assist the CDM team as follows:

- assess each of the firms' capacity
- define capacity gaps
- develop training programs
- identify suitable training providers
- develop mentoring skills of key project staff.

It is therefore, a staged plan that seeks to grow and be relevant to what is going on at that time within the ES3R project itself.

It is recognized that the success of the implementation of the capacity development program depends in part on the ability of the A&E firms and MPW Engineers to develop technical knowledge and skills. But it is also recognized that enhanced capacity development is about much more than just skill development. Capacity development seen in this context is not only to improve capacity for individual employees of the A&E firms but is also an important vehicle through which we can transform the less tangible aspects of the private firms—their attitudes, their commitment and the manner in which they help to build a sustainable professional class in Liberia.

Methodology

The capacity development specialist, Bruce Purdy, arrived in Liberia on 4 January 2014 and departed Liberia on 19 January 2014. The purpose of this initial visit was to produce the short-list and review of five local firms. That task included on-site interviews and assessments of each firm using an Organizational Capacity Assessment (OCA) tool that provided an overall baseline condition for each firm and later could be used after a year to document progress. The tool was developed by TRG staff in conjunction with the capacity development consultant. The OCA was pre-tested with a

Liberian engineering company, slightly adjusted to local conditions and then administered face to face with each of the firms that ultimately showed interest in the project.

Interviews

Face to face interviews were conducted, using the OCA tool, with the principals of seven local Liberian firms in Monrovia. Initially, respondents were told exactly what the purpose of the interview was to be and why it was being conducted. Interviews took on average about one and a half hours to conduct. The principals of one of the remaining eight firms were visiting the United States and were subsequently interviewed by the consultant by telephone on his return to the U.S. The remaining ninth firm of the original nine submittals chose not to participate in the program. Thus, eight total interviews were conducted by the capacity development specialist.

Within each interview, immediately following completion of the formal questionnaires, respondents were invited to explore issues, which had arisen during the course of the interviews in an informal setting and to provide a more personalized insight into the topics covered. Thus the interview had both quantitative and qualitative components.

A & E Firms Interviewed

A list of the A & E firms which participated is included in Annex A of this document.

2.2.2 Submission of Project Deliverables

The following deliverables and documentation were finalized and submitted to USAID/Liberia on 20 January 2014:

• Inception Report

This was the final Inception Report which was prepared with the incorporation of comments which had been received from USAID/Liberia and L-MEP, the latter in respect of the Performance Management Plan, the final version of which was issued simultaneously.

• Quarterly Report, Year 1, Quarter 1

This was the first quarterly report submitted on the project.

• Project Budget Realignment

This letter was prepared and issued as a consequence of a number of minor desirable changes which have been effected following many discussions, which have led the parties to the conclusion that a budget realignment be presented in order that the relevant items are consolidated.

Vehicle Procurement

This letter was prepared in order to present our motivation for the procurement of further project vehicles, which are a requirement for project operations to be continuous out of the Monrovia office and in the field without significant disruption. We believe that this will be the case immediately following the mobilization of the field teams to the county field offices.

2.2.3 Award of Works Contracts and Notice to Proceed

A series of meetings were scheduled by USAID/Liberia in order that the three contracts be awarded, as a result of the evaluation of bids which were received for the contract solicitations. The meetings, to which CDM, the Quality Assurance Contractor (QAC) under the terms of the contracts, was invited and attended, were held at the U.S. Embassy as follows:

- 22 January 2014 (11:00 hrs) The award and Notice to Proceed for the Nimba Roads to 21st Century Engineering
- 22 January 2014 (14:30 hrs) The award and Notice to Proceed for the Bong Roads to Westwood Contractors
- 27 January 2014 (14:00 hrs) The award and Notice to Proceed for the Lofa Roads to SSF Entrepreneur Inc.

2.2.4 Road Prioritization Tool

There has been much time input related to the development of the Road Prioritization Tool through meetings and discussions with USAID/Liberia as well involving a number of stakeholders as follows:

22 January 2014: USAID Cost Benefit Analysis (CBA) received

Universe of proposed roads received

23 January 2014: Meeting with ES3R COR

• 24 January 2014: Technical discussion with ES3R COR

• 27 January 2014: Meeting with FED & LISGIS re: GIS matters.

Discussions on 'Target Markets' for F2M

roads.

28 January 2014: Maps of Bong and Nimba compiled by GIS

officers from FED and LISGIS.

Meeting with COP FED

Counties Visit: Concept of Road Prioritization Tool

introduced to key stakeholders.

There are numerous key items which have become apparent as a consequence of the various meeting and discussions which have taken place. These are included in the 'Status of Road Prioritization Tool' which is included in Annex B of this document.

2.2.5 Field Visits to Counties by USAID and CDM key staff

A joint USAID/Liberia and CDM visit to the three counties was scheduled to commence on 28 January 2014 with a return to Monrovia estimated on 2 February 2014. The visit was carried out as per schedule with the key administrative and technical activities (by County & order visited):

Lofa County 29 January 2014

- Meeting at County Administration (Voinjama)
- Inspection of Bitijama Road (3.6km)
- Inspection of Galamai Road (2.6km)
- Visit to MPW Resident Engineer office (RE not present)
- Visit to FED offices

Bong County 30 January 2014

- Meeting at County Administration (Gbaranga)
- Visit to FED office at CARI, Suakoko.

31 January 2014

Inspection of Tolomai – Pele – Palala Road (Bong) 30.7km

Nimba County

- Inspection of Bahn Kpayee Payee Zuolar Road (Nimba) 14km
- Inspection of Dwonwea Zuolapa Road (Nimba) 4.1km

1 February 2014

- Meeting of Key Stakeholders at Sannequelle
- Visit to FED office (Ganta)
- Visit to 21 Century Engineering compound (south of Ganta)
- Visit to recently constructed feeder road (south of Ganta)

One of the main purposes of the visit was for USAID to make formal introduction of both the ES3R project and CDM key staff to the county officials and key stakeholders. In addition, it provided CDM the opportunity to become familiar with the condition of a selection of existing tracks/roads to be included in the imminent road rehabilitation works.

The meetings with senior county officials and key stakeholders were most informative, with all parties keenly interested both in the imminent commencement of construction rehabilitation works and in the F2M roads which will be targeted for design by the team. A key item which was raised as a concern during all the meetings was the coordination of the selection process for roads to be included for rehabilitation. It seems that in the past the same roads have been selected for upgrading by different bodies, which should clearly be avoided in the future. CDM are aware of this situation and will make every effort to coordinate the target road selection

process by close liaison with MPW and regular updating of the GIS data system which is managed by L-MEP.

A Trip Report which includes further information regarding follow up and output is included in Annex C of this document. Annex D includes selected photographs of portions of the roads to be rehabilitated under the works contracts already awarded by USAID.

3. OUTSTANDING ITEMS

The following is a list of outstanding items, status of each with pending items and areas of responsibility.

Item	Outstanding	Status	Action	Responsible
	Issue		Required	
1.	Appointment of F&A Manager	Preferred candidate identified	Offer made to preferred candidate	CDM
2.	Recruit RE staff	Response to advert under assessment	Interviews completed, two offers accepted.	CDM
3.	Recruit Design and supervisory TCN's	Contact proposed staff members	Progressing, approval applied and awaited	USAID
4.	QAC Scope	Scope of RFT and solicitation docs not compatible	Review to be carried out	USAID
5.	Prequalification Document	Scheduled for submission to USAID 20 February 2014	Draft doc well in progress	TRG
6.	Development of road selection prioritization tool	Initiated and in progress	Finalize prioritization tool	Team
7.	Final Inception Report	IR Submitted 20 January 2014	Comments expected	USAID
8.	Quarterly Report and Budget Realignment	Submitted on 20 January	Comments Expected	USAID
9.	Additional Vehicle Procurement	Letter submitted with proposals	Comments expected	USAID
10.	USAID Implementing Partners	USAID provided introduction to further partners	Meeting scheduled with LAUNCH for 6 Feb 2014	CDM to meet

11.	F2M road construction contracts	USAID award contracts in late January	Site meetings to be scheduled	Team
12.	Contract documents for three contracts	QAC request for copies	Contract documents to be issued	USAID
13.	Employment of SI site staff	SI positions advertised	Interviews pending budget approvals	CDM/Cardno
14.	Identify GIS consultant	Initiated	Market search	CDM/Cardno
15.	Visit to counties and F2M roads	Visit to counties carried out	Download from visits	Team

4. OUTLINE SCHEDULE

Preamble

The schedule for field staff input in terms of the commencement of construction oversight and design of the target roads is heavily dependent on the mobilization and deployment of field team leaders (TCN's) for whom approval is awaited. The mobilization schedule which is included hereafter reflects the time in weeks for the particular staff item, following the receipt of the relevant approvals from USAID/Liberia.

Staff Description	Employment Offer	Mobilization to Liberia	Mobilization to Site	Deployment on Site
TCN's (3No) Field Team Leaders	0	+2 or 3	+2.5 or 3.5	+3 or 4
Resident Engineers (3No)	Mid- January 2014	Resident in Liberia	Commence mid February	From mid- February
Site Inspectors (3No)	+1	Resident in Liberia	+4 or 5	From +5
Trainee(s)	Engagement as agreed with A & E firms and to suit work schedule on particular site.			

Offers have been made to potential resident engineers and it is expected that the first of these three staff members will commence work in mid-February 2014, followed by the balance of RE's by early to mid-March. It is worthy of note however, that these resident engineers as well as the contractors, are to be mentored by the Field Team Leaders whose mobilization to Liberia and deployment on site is critical.

The work schedules envisaged in terms of project objectives are addressed hereafter, however it must be emphasized that the field teams will not be able to function effectively either in construction oversight or in the road survey and design functions until the arrival on site of the field team leaders. Thus, it is not considered practical to present the schedule as a time chart but rather as a list of items which will be carried out on the particular objective during the month.

Objective 1 – Construction Oversight

The items which will be progressed during February will be as follows:

Mobilization process

Support with Inception Report

Approval / rejection

Support with incremental design

Approval / rejection

First site meetings

Monthly progress report

It should be understood that this construction oversight is not a straightforward undertaking and in the absence of the field team leaders, we do not consider that the resident engineers have sufficient experience to fulfill the oversight duties of the QAC. Additionally, the site inspectors are to be the full time site based overseers, thus their early deployment is required in order that the resident engineers may devote time to target road survey and design functions as soon as practical.

Objective 2 – Design and Contract Documents

Section 2.2.4 of this document indicates the good progress which has been made in the formulation of the road prioritization tool during January. The schedule for completion of the tool is envisaged to be concluded by mid-February 2014.

The items which were scheduled to be commenced during February 2014 were to be as follows:

Identify roadnet to be surveyed

Undertake inventory survey

Undertake rapid condition survey

Process data

Preliminary cost estimate

Prepare MCA matrix

It is advised that the majority of these items are to be led by the field team leaders who have the requisite experience to progress this work with the necessary assistance of resident engineers, as and when the latter may be available from on-site oversight duties. Thus it is clearly evident that there will be a delay on this objective.

Objective 3 – Training of A & E Firms

The schedule for February consists of the preparation and submittal of the Draft Prequalification Report, receipt of client comments on the same, followed by the finalization of the final Prequalification Report.

Concurrently, a schedule for the next field visit will be progressed.

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

ANNEX A

A & E FIRMS INTERVIEWED

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION

A & E FIRMS EXPRESSING INTEREST

Name, Address, Telephone Number and Email of Firm	Key Personnel	Interview Date and Time
LONGMAN ENGINEERING SERVICES INC. S.K.D. Blvd., Opposite Don Kan Filling Station; Congo Town, Monrovia Tel: (+231) 6908738; 776814553	Thomas W. Johnson and Moses Abu	WEDNESDAY 8 TH JANUARY 2014 - 2:00 – 3:30PM
AMALB SYSTEMS, INC. AND, KARNLEY ARCHITECTS, PLANNERS AND ENGINEERS 8 TH STREET, SINKOR, Monrovia (231) 886921068 ekarnely@yahoo.com	Elijah Karnley	WEDNESDAY 8 TH JANUARY 2014 - 4:00 PM
GBESOHN ASSOCIATES LIMITED Warren Street, off Camp Johnson road Gooding Building, Central Monrovia. Office Tel:+231-202-123819; Cell:+231-886-123819 Email:isaac@gbesohnassociates.com	Engr. Isaac K. Krah-Gbesohn Managing Principal Partner	THURSDAY- 9 TH JANUARY 2014 - 10:00 – 11:30AM
PRIME CONSORTIUM INC. Red-light, Benson Hospital, Paynesville Freeman.richardk@gmail.com jkpajibo@hotmail.com Tel: +2316-520101 / +231-770328214 (Mr. Pajibo's telephone)	Jlateh K. PajiboRichard K. Freeman Farfini Kamara Suleiman Ken	THURSDAY- 9 TH JANUARY 2014 - 1:00 - 3:00PM

TSC ENGINEERING AND CONSTRUCTION CONSULTANTS INC. ACICO Building,2nd Floor Carey Street, Monrovia asackor@tristarliberia.com Monrovia: +231 880657966	Amara Sackor	THURSDAY- 9 TH JANUARY 2014 - 4:00PM
WALKER-ROBINSON INTERNATIONAL Center and Carey Streets, Monrovia Tel: +231 8866547652 Narsamstmt1@yahoo.com	Norman Robinson	FRIDAY- 10 TH JANUARY 2014 - 10:00AM – 12:00PM
JADA, Inc. Dual a rod island, Monrovia arunadorley@gmail.com	Aruna Dorley	MONDAY, 13 January 2014, 9:00Am 11:00AM
Clinton and Partners, Inc. 20 th Street, Sinkor, Tubman, Blvd. Monrovia, Liberia Tel: 888. 947. 911 Jclin912@hotmail.com	Joyce Clinton	Friday, 24 January, 2014 (interviewed via telephone in the United States)

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

ANNEX B

STATUS OF ROAD PRIORITIZATION TOOL

Status of Road Prioritization Tool - End of January 2014

1. Key dates

Date	Details	Comments
22 Jan	Receipt of 1. USAID's CBA 2. Universe of Proposed roads	 Critical assumptions made in CBA are: Implementation using labour based techniques i.e. 55%-45% split. Contractors are using a mechanised technique. The use of local materials, wood etc. MPW have a policy that wood is not to be used as a bridging material. The analysis uses AADT of greater than 100 vehicles/day. This appears to be unusually high for F2M roads. Presumed to be based on discussions with FED oficers
23 Jan	Meeting with ES3R COR on tool	Discussions on relevant criteria and weighting
24 Jan	Preliminary criteria and weightings inserted in to matrix	1. Undertaken by ES3R COR and RDE
27 Jan	 Meeting with GIS officers from FED and LISGIS at LISGIS Office Discussions on 'target market' for f2m roads 	Growing importance of connectivity of f2m roads to higher/highest road network hierarchy.
28 Jan	 GIS officers from FED and LISGIS compile maps of Bong and Nimba Meetings with COP FED 	 Relevant data selected and maps prepared for all Districts where FED is operational. Formulation of maps requires 1 GIS officer day /county. Counties of Voinjama and Grand Bassa to be undertaken after ES3R's imminent trip to Counties. Arrange meeting to discuss preliminary tool with value chain Leads on 6th February
29,30 th Jan & 1 st Feb	Meetings with Key County Stakeholders at Voinjama, Bong and Nimba	Concept of tool introduced including the participatory stakeholder approach to prioritization

2 Key Points

- 1. CBA prepared by USAID in order to be relevant needs to be reviewed to accommodate, 1. Mechanised road improvement techniques, 2. Use of conventional engineering materials, 3. Defendable traffic counts/predictions. On this basis the use of the CBA appears to have limited application. Inception Report recommends use of an alternative method.
- 2. Developing appropriately populated maps thus far has been a lengthy resource intensive process. The project is dependent on other agencies for this service.
- 3. To be able to recruit then train a GIS officer in ArcGIS to a sufficient level of competence in the time allocated is overly ambitious. It is more efficient to seek 'consultancy services' from existing GIS officers.
- 4. A timely conclusion is need on road prioritization criteria with FED and other key stakeholders

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

ANNEX C

COUNTIES TRIP REPORT LOFA, BONG, NIMBA.

TRIP REPORT

Dates: Tuesday 28th January - Sunday 2nd February 2014

Key personnel: H.M. Shelmerdine COP CDM International, J. Clarke RDE, Cardno EM, D.W. Wounoah COR USAID

Purpose

- Introduction to Key Stakeholders in Lofa, Bong and Nimba County
- Orientation of existing road conditions of selected roads from current contracts
- Visit MPW Resident Engineers Offices
- Visit FED Offices

Date	Key Activities	Follow Up/Output
28 th January Night at Voinjama	Depart Monrovia early am. Arrive Voinjama late afternoon	 Journey time Monrovia – Gbarnga 5 hours. Gbarnga Voinjama 4 ½ hours
29 th January Night at Voinjama	 Meeting at Voinjama County Admin Blding (MPW Engineer not present) Road inspection Bitijama 3.6 km Road Inspection Galamai. Indicated in contract as 1.7 km but GPS records 2.6 km Inspection of MPW RE office Meeting with DW in FED to discuss inconsistencies – payment for clearing – budget ceiling on road links within each contract remain as indicated in contract, level of effort to be distributed and interventions selected to accommodate budget ceiling. 	 Attendance list attached BoQ items in current contracts are inconsistent with specification. Road lengths for all current improvement contracts were measured with vehicle odometer. Field team to be based at FED with trips to MPW office DW to organise meetings with all 3 contractors to discuss re design approach and potentially contentious bill item descriptions w/b 3rd
30 th January	 Depart for Gbarnga, early am. Meeting with Key stakeholders (Superintendent not present) 	February. 1 Attendance list attached 2 Field team to be based at FED/CARI. Need to
Night at Gbarnga	3. Visit FED office at CARI, Suakoko	meet with deputy minister of Ag in order to secure offices in CARI.

31 st January	 Journey to Ganta Road inspection Tolomai – Pele – Palala Road (Bong) indicated as 29.9 km but GPS records 30.7km 	1. Journey time Gbarnga – Ganta 1 ½ hours
Night at Ganta	 Road inspection Bahn – Kpayee – Payee – Zuolar Road circa 14 km. Road inspection Dwonwea to Zuo-Lapa road indicated as 	
	4.1km GPS records 4.08 km	
1 st February	Journey to Sannequelle	Journey time Ganta - Sannequelle 1 hour
	Meeting with Key Stakeholders Sannequelle	Attendance list attached
	3. Visit FED office	3. Field team to be based at FED office with trips to
Night at	4. Visit 21 st Century compound, south of Ganta	MPW as necessary.
Ganta	5. Visit to recently completed feeder road	
2nd February	Return to Monrovia early am	Journey time Ganta - Monrovia 6 hours

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

ANNEX D

COUNTIES ROAD PHOTOGRAPHS



Tolomai – Pele – Palala Road (Bong)



Tolomai – Pele – Palala Road (Bong)



Tolomai – Pele – Palala Road (Bong)



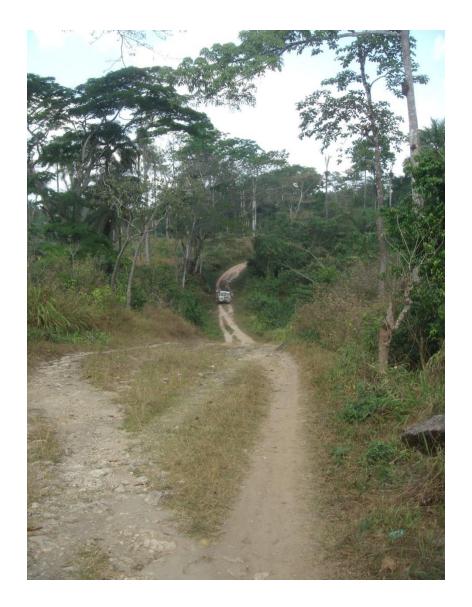
Tolomai – Pele – Palala Road (Bong)

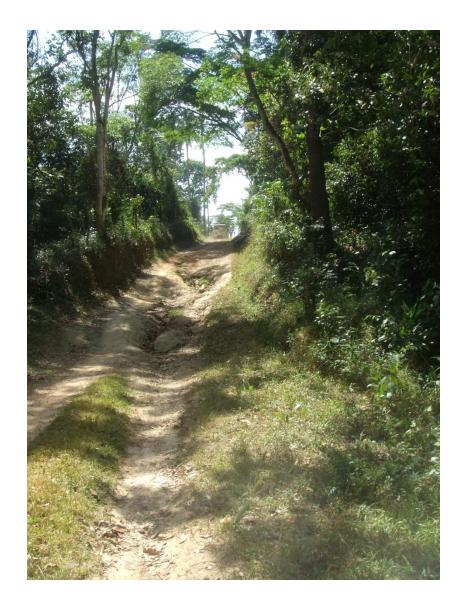


Bitijama Road (Lofa)



Bitijama Road (Lofa)





Galamai Road (Lofa)

Galamai Road (Lofa)



Bahn – Kpayee – Payee – Zuolar Road (Nimba)



Bahn – Kpayee – Payee – Zuolar Road (Nimba)



Dwonwee – Zuolata Road (Nimba)



Dwonwee – Zuolata Road (Nimba)